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# MULTIMEDIA UNIVERSITY

## FINAL EXAMINATION

TRIMESTER 1, 2017/2018

### MME7113 – PRINCIPLES OF MULTIMEDIA IN EDUCATION TECHNOLOGY (All sections / Groups)

06 OCTOBER 2017  
10.00 a.m. – 12.00 p.m.  
(2 Hours)

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#### INSTRUCTIONS TO STUDENTS

1. This Question paper consists of 4 pages including cover page with 6 Questions only.
2. Answer **FOUR** out of **SIX** questions. All questions carry equal marks and the distribution of the marks for each question is given.
3. Please print all your answers in the answer Booklet provided.

**SECTION A: Compulsory (40 marks)****QUESTION 1**

*"To learn is to change. Education is a process that changes the learner."* – George Leonard. The most significant issue relating to learning is the relatively recent paradigm shift in education. This change is illustrated in the way in which curriculum is defined and technology is used.

- a) Briefly explain the three phases of the "Paradigm Shift" and what revolutionary changes that happened at each stage.  
(15 marks)
- b) In your opinion, what are the advantages of moving from analogue to digital?  
(5 marks)
- c) Briefly explain the purpose of a computer and why digital technology is being accepted widely.  
(10 marks)
- d) What makes the computer different from any other tools? Briefly explain the categories of computers that are being used today.  
(10 marks)

**(TOTAL: 40 MARKS)**

**SECTION B: Answer any THREE of the following questions. All questions carry equal marks.**

**QUESTION 2**

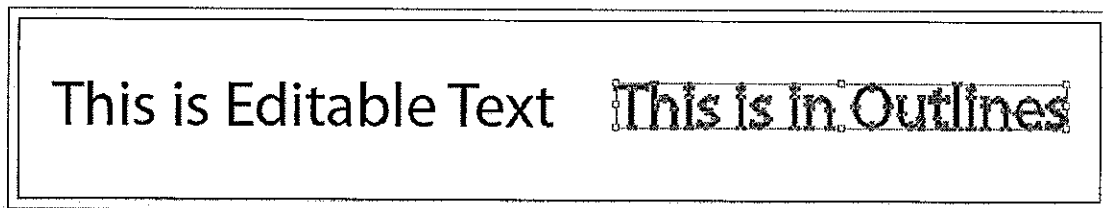
If you are designing a multimedia presentation, developing an online course or preparing to flip your classroom, you may need to reconsider how you will get students to engage with the material without the traditional face-to-face interaction. Discuss the twelve principles of multimedia learning as illustrated by Mayer (2001) that shape the design and organization of multimedia presentation. Give examples where necessary.  
(20 marks)

**(TOTAL: 20 MARKS)**

**Continued .....**

**QUESTION 3**

- a) Briefly explain the different image file extension types and the best use for each type as listed below:
- i) JPEG
  - ii) PNG
  - iii) GIF
  - iv) TIFF
  - v) EPS
- (10 marks)
- b) Graphic designers often create files in Illustrator and save an AI file as our master file, but then also save an EPS version, “in outlines”, which is used in production and sent to print. Discuss.



(10 marks)

**(TOTAL: 20 MARKS)**

**QUESTION 4**

- a) Discuss the fundamental steps in digital image processing. Give examples where necessary.
- (10 marks)
- b) What are the components of digital image processing system?
- (10 marks)

**(TOTAL: 20 MARKS)**

**Continued .....**

**QUESTION 5**

When using graphics programs to set-up your files, it is extremely important to understand the difference between a raster file and a vector file.

- a) Describe the difference between Raster and Vector images.  
(10 marks)
- b) Briefly discuss the advantages and disadvantages of both file types.  
(10 marks)

**(TOTAL: 20 MARKS)**

**QUESTION 6**

Image compression can be further classified or divided in two separate types such as lossy compression and lossless compression.

- a) Explain the difference between lossy and lossless compression.  
(16 marks)
- b) Describe the benefits of image compression technique.  
(4 marks)

**(TOTAL: 20 MARKS)**

**End of Paper.**